# Seattle City Light Advisory Board Informational Briefing

### **CONSERVATION PRESENTATION**

Tuesday, July 8, 2003

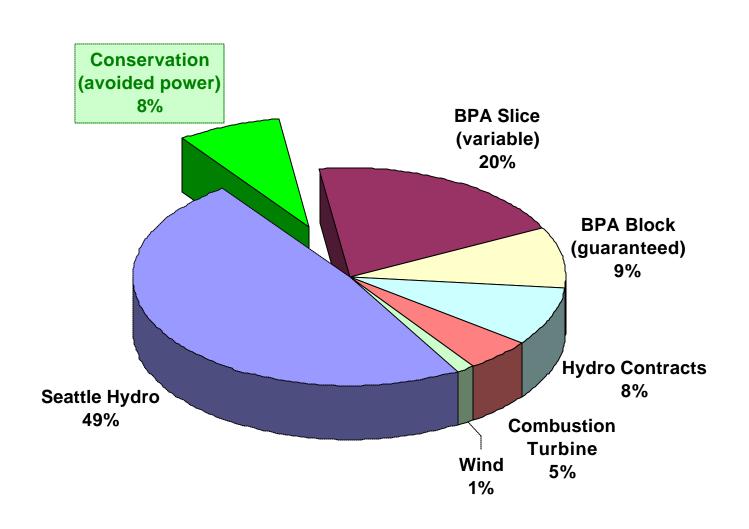


# **BACKGROUND & POLICY HISTORY**

- ✓ 1972 Seattle 2000 Commission designated energy conservation as Seattle's priority energy resource; adopted by City Council
- ✓ 1976 Energy 1990 Study convinced City to invest in energy conservation instead of nuclear energy
- ✓ 1977 City Energy Office & Seattle City Light Energy Conservation Office created
- **№** 1981 Bonneville Power Administration began funding conservation efforts under the Regional Power Act
- ✓ 1992 Citizens Conservation Committee / Energy Resources
  Strategy sets a 10 year /100 aMW savings acquisition goal
- ✓ 2000 City adopts an Earth Day Resolution specifying that City's electrical load growth will be met by conservation & renewables
- **№** 2002 Seattle City Light's *Strategic Resource Assessment* includes conservation acquisition goals



### **CITY LIGHT'S 2002 POWER PORTFOLIO**



Source: SCL's Power Management Website

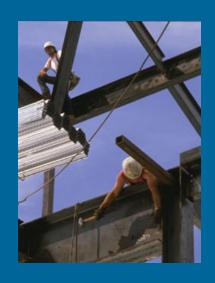
### **SUCCESS FACTORS**

- ★ Energy conservation is the City's priority energy resource
- ✓ The community has a strong environmental stewardship ethic that local officials reflect through the adoption of specific public policies, programs & regulations
- ✓ Provide excellent customer service, incentives & a wide range of programs & services across all sectors
- ✓ Good for the local economy
  - Lowers customer bills & operations / maintenance costs
  - Stimulates business opportunities
  - Creates jobs
- ✓ National & international recognition



# LONG TERM STRATEGIES

- ✓ Meet 100% of load growth over the next decade w/
  conservation & renewable resources
- ★ Assure development of all cost-effective conservation w/in the service territory by:
  - Installing energy efficiency measures under City Light's conservation programs;
  - Promoting more aggressive local energy codes & federal efficiency standards;
  - Facilitating market transformation;
- ✓ Reduce greenhouse emissions
- ✗ Facilitate sustainable development
- ✓ Provide customer advice & assistance on efficient use of energy to all customer groups across the community.
- ✓ Promote community values & city policies while partnering w/ other city depts in delivering resource efficiency programs & services (e.g., low income weatherization, sustainable development & code development).





# LONG TERM DETAILS / Programs & Services

### **✗** Specific end-uses

- lighting
- appliances
- water heat
- plug loads
   electronics

- motors & fans
  - chillers
  - → HVAC
- space heat
   equipment





- public sector tailored agreements
- private sector individualized contracts



- multifamily & limited single family
- commercial & industrial structures
- sustainable building incentives







# LONG TERM DETAILS / Services & Activities

#### **✓** Education & outreach

- business & community workshops
- website technical & program/service info
- → lectures & forums
- → major multi-media awareness campaigns

### Energy codes & standards

- more stringent local codes
- federal efficiency standards for appliances



#### Market transformation

collaboration w/ NW Energy Efficiency Alliance and other regional & local entities









### **BONNEVILLE POWER ADMIN RELATIONSHIP**

#### Background

- → BPA Federal agency that markets wholesale electricity & transmits power to NW utilities & large industrial customers
- → Long standing relationship in acquiring energy savings
- → Typically funds a portion of program expenditures
- → Funding levels have fluctuated over the years

#### **✓** Current Conservation Augmentation (Con Aug) Contract

- → For FY 2002 and 2003
- → \$26.6 million over contract period
- 9 aMW per FY
- Decrement Power Contract by EE efforts

#### **✓** Letter of intent for new contract

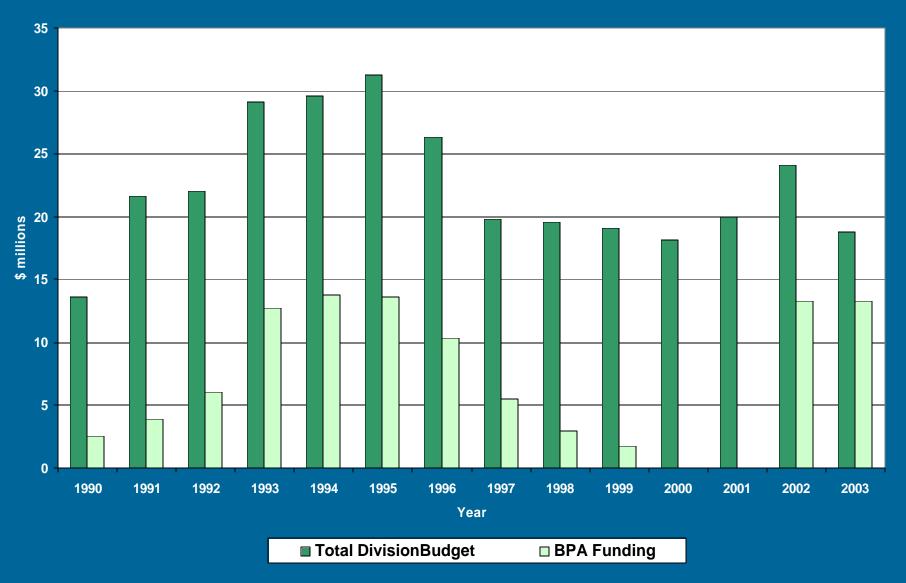
- → For FY 2004 through FY 2006
- → Approximately \$8 million per year
- → 7.25 aMW per FY



#### Conservation & Renewables Discount

Utility receives power bill credit for utilization of renewable power & energy savings acquisition

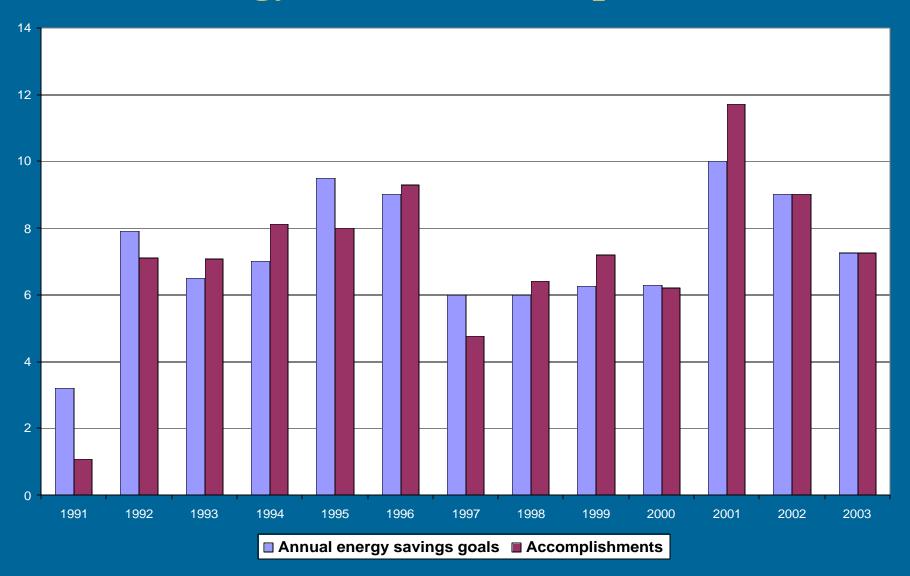
# **EMSD Budget & BPA Funding**



# **EMSD Plan vs Conservation Acceleration**

	Year	Expenditures	BPA Funding	Programmatic Accomplishment (aMW)
Energy Management Services Plan	1996	21.4	10.3	6.58
	1997	16.6	5.5	4.54
	1998	20.0	3.0	7.59
	1999	20.5	1.7	7.10
	2000	17.6	0.0	5.33
Conservation Acceleration	2001	26.9	0.0	9.92
	2002	18.0	13.3	9.0
	2003	18.8	13.3	7.25

# **Energy Goals & Accomplishments**



Source: EMSD Accomplishments Report & Internal Projections

# RELATIONSHIP w/ NW ENERGY EFFICIENCY ALLIANCE

#### Background

- → NEEA a private, non-profit regional corporation whose purpose is to permanently increase market share of energy efficient products & services using the tool of "market transformation"
- → Members since 1996; Board representation
- → 1998 initially contracted to operate the Lighting Design Lab
- → Facilitated the convening of the Utility Coordination process

#### Programs participation

- Commercial Bldgs Initiative
  - BetterBricks
  - Product Technical Review
  - High Performance Bldgs Pilot

#### Residential

- CFL Coupons
- Torchiere "turn-in" & Coupons
- Resource Efficient Clothes Washer Promotion
- Residential Bldgs Initiative

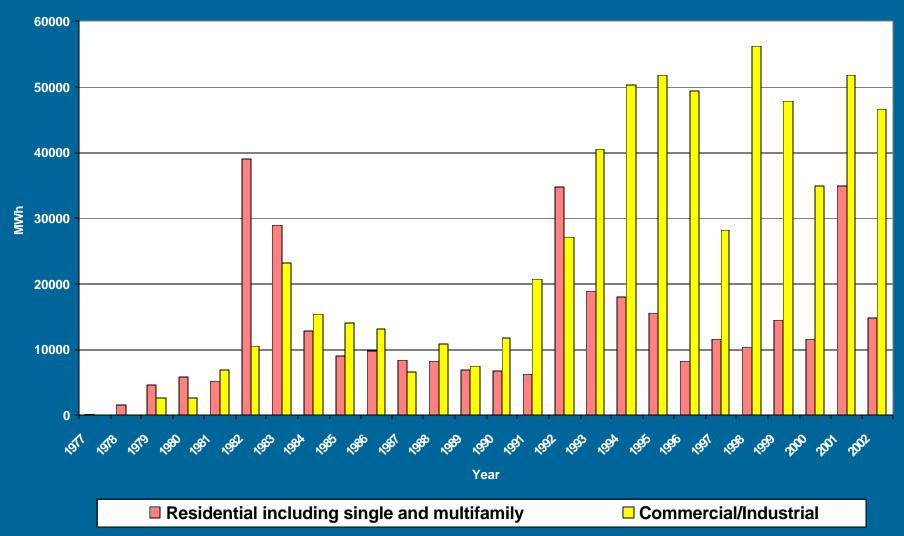


# **2003 Municipal Conservation Investments**

	Savings Goals (aMW)	Conservation Budget (millions)	# of Customers
Seattle City Light	7.25	\$18.9	354,500
Snohomish Public Utility District	5.5	<b>\$10.4</b>	284,000
Tacoma Power	1.6	<b>\$6.8</b>	159,000
Clark County Public Utility District	N/A	\$1.3	168,000
Eugene Water & Electric Board	2.5	<b>\$7.1</b>	80,000

Source: Self reported statistics

# **Historical Shift of Sector Program Emphasis**



Source: EMSD Accomplishments Report & Internal Projections

# MEASURING PERFORMANCE

- Reporting & tracking
  - Publish accomplishments report annual
  - Provide conservation data for Fed Energy Reg Cmsn & SCL annual reports
  - Performance Metrics for City Council annual reporting
  - As required under BPA ConAug contract, report on energy savings (completed projects) 2 x / yr Evaluation Reports
- Evaluation reports
  - Conduct impact & process studies periodic
- Conduct point-of-service customer satisfaction surveys ongoing
- ✓ 2001 independent assessment of:
  - Energy savings performance & program cost
  - Program design & operational efficiency
  - → Emerging conservation trends & programs



# CONSERVATION COST EFFECTIVE ASSESSMENT

PERSPECTIVE	NPV (millions of 2003 "real" \$s)		
PERSPECTIVE	w/o BPA \$s	w/BPA \$s	
Service Territory (w/o customer contribution)	11.6	20.8	
Service Territory (with customer contribution)	3.5	12.7	
Participating Customer (bill savings)	26.2	26.2	
Utility (net impact on cash)	-22.7	-13.6	

#### **ASSUMPTIONS:**

- \* 7.25 aMW acquired in CY 2003
- \* SCL Cost = \$16.9 million
- \* Estimated Customer Cost = \$9.0 million
- \* Estimated BPA Payments for 7.25 aMW = \$10.0 million
- \* NPV assessed over lifetime of energy savings investment at SCL's marginal cost
- \* Marginal cost = Henwood Energy Wholesale Price Forecast (April 2003)
- \* Lifetime of energy savings = 15 years (weighted avg of measures installed under SCL programs)
- \* Real discount rate = 3%
- \* Nominal discount rate = 6%

# **ISSUES & CHALLENGES**

- Achieving savings goals
- Effectively dealing w/ the effects of the downturn of the local economy
  - Customers feeling impact; have less \$\$ or no discretionary budget for conservation investments particularly prevalent in the Commercial and Industrial sectors
- ✓ Continued Bonneville funding (current contract ends 9/31/03; BPA experiencing serious financial challenges of its own; letter of intent signed for future funding)
- ★ Keeping up w/ changing advances in technology and the need for continuous improvement